

Date: Wednesday, 5/2/2007 3:43:47 PM  
 User: Kim Johnston

## Process Sheet

|   |                                     |
|---|-------------------------------------|
| Customer : CU-DAR001 Dart Helicopters Services      | Drawing Name : BAR                  |
| Job Number : 32136                                  |                                     |
| Estimate Number : 10388                             |                                     |
| P.O. Number : <i>NIA</i>                            | Part Number : D31963                |
| This Issue : 5/2/2007 S.O. No. : <i>NIA</i>         | Drawing Number : D3196 REVC         |
| Prsht Rev. : NC                                     | Project Number : N/A                |
| First Issue : <i>NIA</i> Type : MACHINED PARTS      | Drawing Revision : C                |
| Previous Run : 30602                                | Material : <i>NIA</i>               |
| Written By : <i>[Signature]</i>                     | Due Date : 5/9/2007 Qty: 6 Um: Each |
| Checked & Approved By : <i>[Signature] 07.05.03</i> |                                     |
| Comment : Est Rev: A New Issue 05-11-08 JLM         |                                     |

## Additional Product

Job Number:



|         |                       |               |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

|     |                    |                         |
|-----|--------------------|-------------------------|
| 1.0 | M6061T6B0750X01500 | 6061-T6 Bar .75" X 1.5" |
|-----|--------------------|-------------------------|



Comment: Qty.: 3.0345 f(s)/Unit Total : 18.2070 f(s) *\* M104326 + 1 piece*  
 Material: 6061-T6/T651 (QQ-A-200/8) or (QQ-A-225/8)  
 (M6061T6B0.750x01.500) *no more matl.*  
 Identify for D3196-3  
 Batch: *M104057 + 5 pieces* *ml 07/05/03* *8*

|     |          |          |
|-----|----------|----------|
| 2.0 | BAND SAW | BAND SAW |
|-----|----------|----------|



Comment: BAND SAW  
 Cut blank: (0.75" x 1.50") x 34.750" long Bar *ml 07/05/03* *6*

|     |       |                                |
|-----|-------|--------------------------------|
| 3.0 | HAAS1 | HAAS CNC VERTICAL MACHINING #1 |
|-----|-------|--------------------------------|



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3196-3 as per Folio FA339 and Dwg D3196 Identify as D3196-3

2-Deburr *ml 07/08/04* *5*

|     |     |  |
|-----|-----|--|
| 4.0 | QC2 | INSPECT PARTS AS THEY COME OFF MACHINE |
|-----|-----|--|



Comment: INSPECT PARTS AS THEY COME OFF MACHINE *ml 07/05/04* *6*

|     |     |              |
|-----|-----|--------------|
| 5.0 | QC8 | SECOND CHECK |
|-----|-----|--------------|



Comment: SECOND CHECK *SA 07.05.07* *6*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ ☐ Date: 07/05/09  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 5/2/2007 3:43:47 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BAR

Job Number: 32136

Part Number: D31963

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



(6X)

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*m-l 07/05/07*

7.0

POWDER COATING

POWDER COATING



*M101601*

Comment: POWDER COATING

Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

*jsl 07-05-08 (6)*

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*pc 7/5/8 (6)*

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *57247*

*pc 7/5/8 (6)*

10.0

QC21

FINAL INSPECTION/W/O RELEASE



(6)

Comment: FINAL INSPECTION/W/O RELEASE

*07/05/09*

Job Completion



*u 07.05.09.*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

|                       |                         |              |         |
|-----------------------|-------------------------|--------------|---------|
| DART AEROSPACE LTD    |                         | Work Order:  | 32136   |
| Description: Bar      |                         | Part Number: | D3196-3 |
| Inspection Dwg: D3196 | Rev: <i>PC</i> 02-05-02 | Page 1 of 1  |         |

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

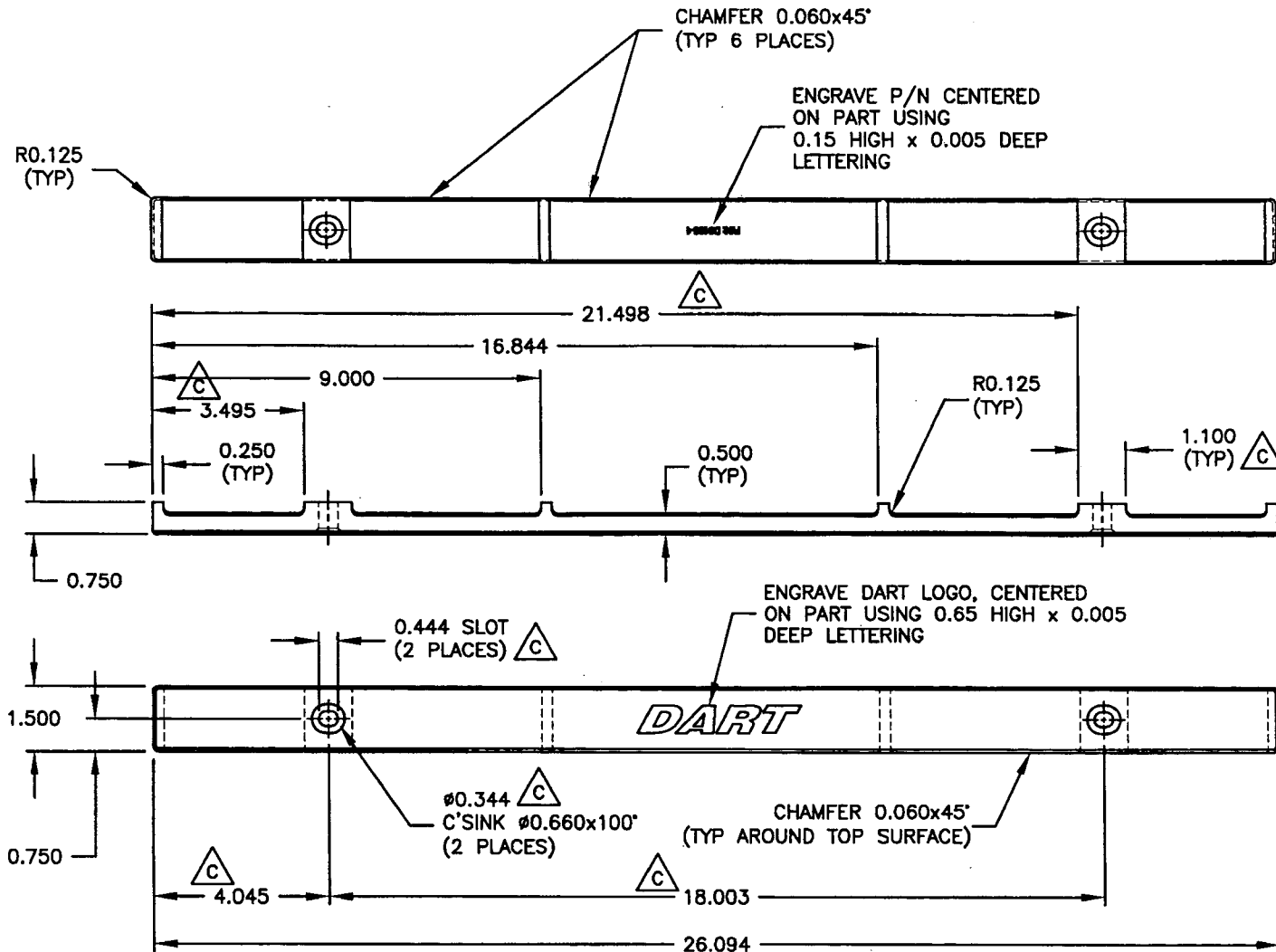
| Drawing Dimension | Tolerance            | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|-------------------|----------------------|------------------|--------|--------|----------------------|----------|
| 34.625            | +/-0.010             | 34.625           | —      |        |                      |          |
| 33.650            | +/-0.005             | 33.650           | —      |        |                      |          |
| 0.488             | +/-0.005             | 0.489            | —      |        |                      |          |
| 17.011            | +/-0.010             | 17.011           | —      |        |                      |          |
| 0.512             | +/-0.005             | 0.513            | —      |        |                      |          |
| 1.500             | +/-0.010             | 1.503            | —      |        |                      |          |
| 0.464             | +/-0.010             | 0.461            | —      |        |                      |          |
| 0.504             | +/-0.010             | 0.501            | —      |        |                      |          |
| Ø0.344            | +0.006/-0.001        | Ø0.345           | —      |        |                      |          |
| Ø0.660 x 100°     | +0.008/-0.001 x 0.5° | Ø0.660x108       | —      |        |                      |          |
| 0.962             | +/-0.005             | 0.961            | —      |        |                      |          |
| 0.750             | +/-0.010             | 0.751            | —      |        |                      |          |
| 4.750             | +/-0.010             | 4.750            | —      |        |                      |          |
| 12.531            | +/-0.010             | 12.531           | —      |        |                      |          |
| 16.999            | +/-0.010             | 16.999           | —      |        |                      |          |
| 21.844            | +/-0.010             | 21.844           | —      |        |                      |          |
| 29.625            | +/-0.010             | 29.625           | —      |        |                      |          |
| 0.250             | +/-0.010             | 0.247            | —      |        |                      |          |
| 1.000             | +/-0.010             | 0.997            | —      |        |                      |          |
| R0.125            | +/-0.010             | R0.125           | —      |        |                      |          |
| 0.987             | +/-0.010             | 0.996            | —      |        |                      |          |
| 0.060 x 45°       | +/-0.010 x 0.5°      | 0.065x45°        | —      |        |                      |          |
|                   |                      |                  |        |        |                      |          |

|                         |                       |                     |     |
|-------------------------|-----------------------|---------------------|-----|
| Measured by: <i>gmk</i> | Audited by: <i>Er</i> | Prototype Approval: | N/A |
| Date: 07/05/04          | Date: 07/05/04        | Date:               | N/A |

| Rev | Date     | Change           | Revised by                | Approved           |
|-----|----------|------------------|---------------------------|--------------------|
| A   | 04.04.20 | New Issue        | KJ/RF                     |                    |
| B   | 06.10.24 | Dwg Rev. updated | KJ/JLM <i>[Signature]</i> | <i>[Signature]</i> |

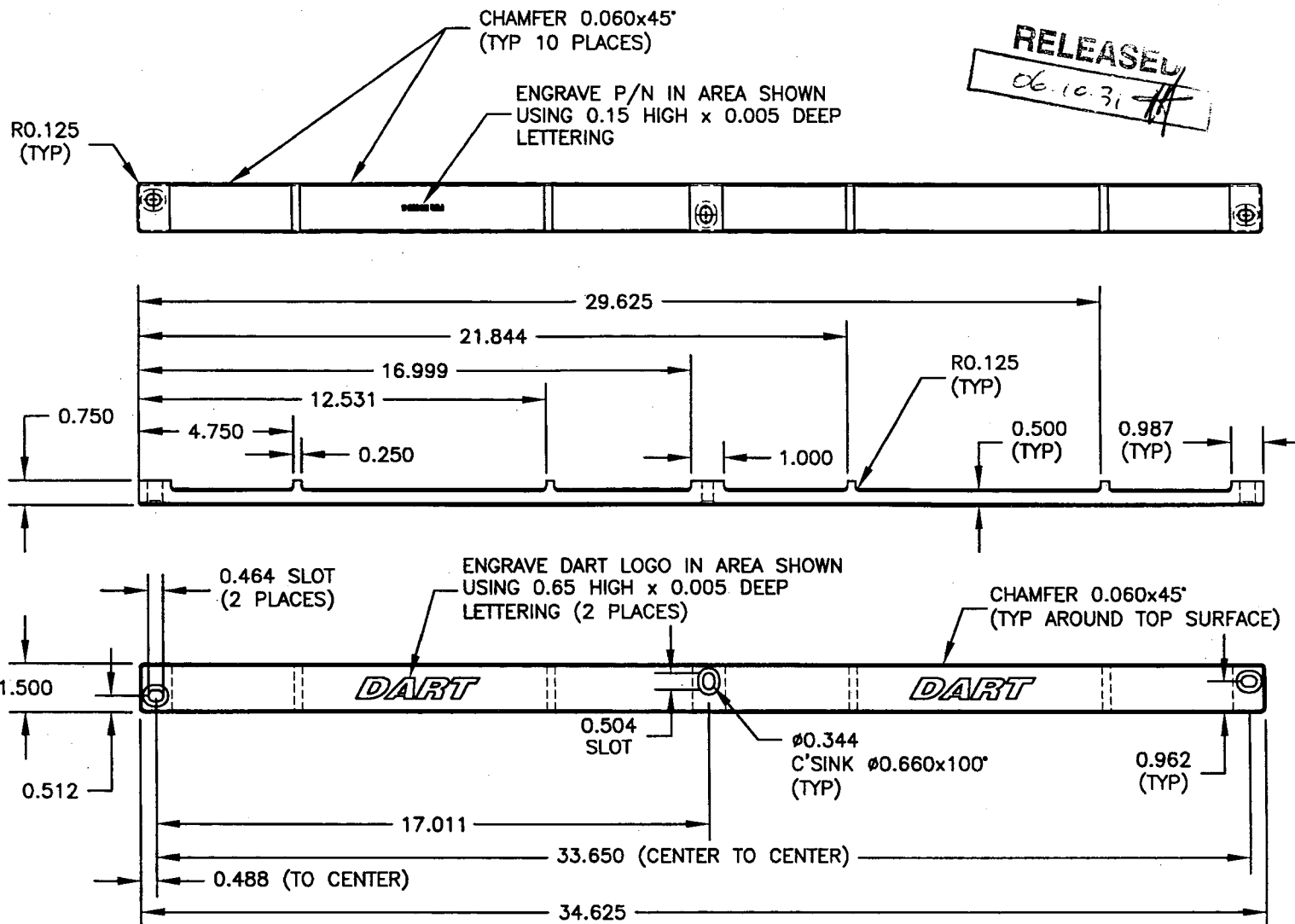
**DART****RELEASED**

06.10.31

**D3196-1 BAR**

- 1) MATERIAL: 6061-T6/T651 ALUMINUM (QQ-A-200/8 OR QQ-A-225/8) (REF DART SPEC. M6061T6B)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

| DESIGN   | DRAWN BY | DART AEROSPACE LTD          |
|----------|----------|-----------------------------|
| QQ       | JB       | HAWKESBURY, ONTARIO, CANADA |
| CHECKED  | APPROVED | DRAWING NO.                 |
| AT       | JB       | D3196                       |
| DATE     | TITLE    | SHEET 1 OF 3                |
| 06.10.31 | BAR      | SCALE                       |
|          |          | 1:4                         |
| A        | 03.06.25 | NEW ISSUE                   |
| B        | 06.09.25 | ADD D3196-5                 |
| C        | 06.10.31 | ADD SLOTS ON -1; REMOVED -5 |



### D3196-3 BAR

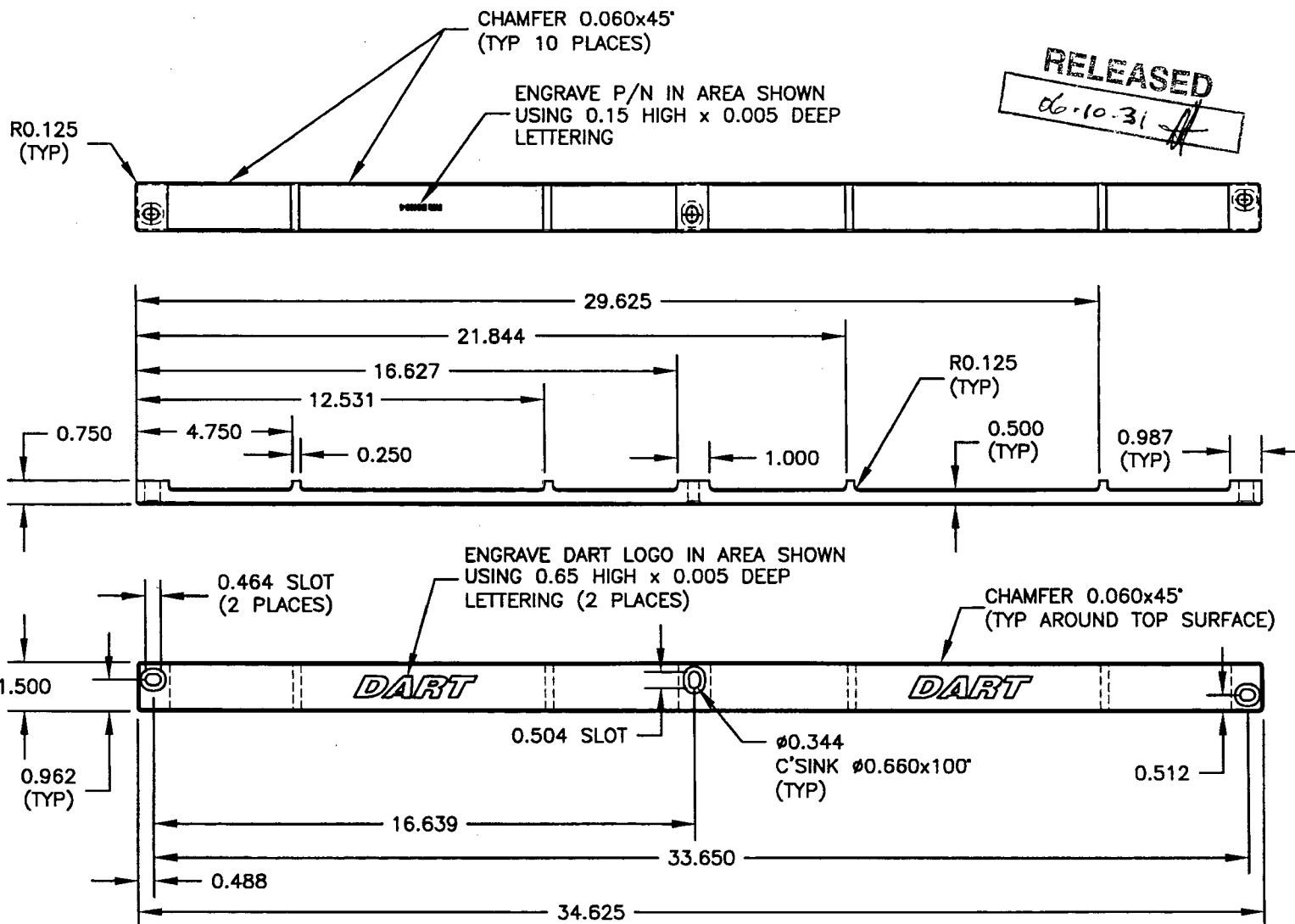
- 1) MATERIAL: 6061-T6/T651 ALUMINUM (QQ-A-200/8 OR QQ-A-225/8)  
(REF DART SPEC. M6061T6B)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

RELEASED  
06.10.31

**DART**

|          |          |             |              |
|----------|----------|-------------|--------------|
| DESIGN   | APPROVED | DRAWING NO. | REV. C       |
| CHECKED  | APPROVED | D3196       | SHEET 2 OF 3 |
| DATE     | TITLE    | SCALE       |              |
| 06.10.31 | BAR      | 1:5         |              |

DART Aerospace LTD  
HAMKESBURY, ONTARIO, CANADA



### D3196-4 BAR

- 1) MATERIAL: 6061-T6/T651 ALUMINUM (QQ-A-200/8 OR QQ-A-225/8) (REF DART SPEC. M6061T6B)
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

RELEASED  
06-10-31

**DART**

|         |          |          |       |                             |
|---------|----------|----------|-------|-----------------------------|
| DESIGN  | 90       | DRAWN BY | JS    | DART AEROSPACE LTD          |
| CHECKED | PH       | APPROVED | JS    | HAWKESBURY, ONTARIO, CANADA |
| DATE    | 06.10.31 | TITLE    | D3196 | REV. C                      |
|         |          | BAR      |       | SHEET 3 OF 3                |
|         |          |          |       | SCALE 1:5                   |